

ENVIRONMENTAL performance in 2015





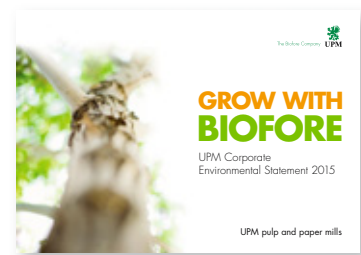
Through the renewing of the bio and forest industries, UPM is building a sustainable future across six business areas: UPM Biorefining, UPM Energy, UPM Raflatac, UPM Paper Asia, UPM Paper Europe and North America and UPM Plywood. Our products are made of renewable raw materials and are recyclable. We serve our customers worldwide. The group employs around 19,600 people and its annual sales are approximately EUR 10 billion. UPM shares are listed on NASDAQ OMX Helsinki. UPM – The Biofore Company – www.upm.com

UPM in Hürth

UPM Hürth (Rhein Papier GmbH) is located on the outskirts of Cologne in the Hürth-Knapsack industrial zone. This central position between the Rhine/Main and Rhine-Ruhr conurbations provides short distances for raw material supplies, customer deliveries and waste management.

The mill was founded in 2001. UPM Hürth's PM 1 paper machine is producing high-quality newsprint and printing paper for advertising supplements since the start-up in 2002. Its raw material is sorted graphic recovered paper, e.g. newspapers, magazines, advertising supplements, catalogues and office paper. The mill's deinking plant can process up to 400,000 tonnes of RCP per year. Process effluents are pre-treated prior to entering the treatment plant in the adjacent chemical industrial park. Most waste is disposed off locally and energetically recovered. The energy needed for the production process was supplied by the neighboring power plant until the end of 2015. From 2016 electrical power will be drawn from the public grid.

The UPM Hürth mill focusses on a safe working environment, high productivity and innovation for the benefit of its customers.



UPM Hürth Environmental Performance 2015 is a supplement to the Corporate Environmental Statement of UPM's pulp and paper mills (available at www.upm.com) and provides mill-specific environmental performance data and trends for the year 2015. The annually updated mill supplements and the UPM Corporate Environmental Statement together form the joint EMAS Statement of UPM Corporation. The next Corporate Environmental Statement and also this supplement will be published in 2017.



UpCode to the "More with Biofore" video

Production capacity	Up to 330,000 to/a	
Personnel	Ca. 125	
Products	Standard newsprint: UPM News C	Heatset newsprint: UPM EcoBasic H
Certificates	EMAS – EU Eco-Management and Audit Scheme ISO 14001 – Environmental Management System Standard ISO 9001 – Quality Management System Standard ISO 50001 – Energy Management System Standard OHSAS 18001 – Occupational Health and Safety System Standard PEFC™ Chain of Custody – Programme for the Endorsement of Forest Certification FSC® Chain of Custody – Forest Stewardship Council®	
	<i>All certificates can be found from UPM's Certificate Finder (available at www.upm.com/responsibility)</i>	
Environmental labels	German Blue Angel for UPM News C and UPM EcoBasic H	



The mark of responsible forestry

For FSC products, visit www.fsc.org



For PEFC products, visit www.pefc.org



Environmental year 2015

Environmental concerns have always been embedded in our way of thinking. Continuously reducing our energy and water consumption, steadily increasing raw material yield to minimize waste and using sustainable chemical additives for our production processes are the primary focus of continuous improvement. This process has been driven by a management system for environment, quality, energy and occupational health and safety since the mill's certification to international standards.

As a company of the Finnish UPM Corporation we are committed to conserving the environment and operating our production facilities in such a way as to minimize the impacts on the environment and our employees.

Since steam and electricity have been delivered from the adjacent power plant we can influence the corresponding key figures only by increasing energy efficiency. Usage of electrical power couldn't be further decreased in 2015. The increased usage of electrical power during the summer months resulting from disturbances in machine running overlaps the success of the savings in the annual balance. The need for heat (steam) could be decreased remarkably by 13.5%. Reducing the temperature of white water and warm water as well as the decision to run dispersers without steam made for this excellent result. Fibre yield from recovered paper was on target level.

Environmental Reporting is done in a global data base. Incidents are categorized

from 1 (insignificant) to 5 (serious impact on environment). Each month incidents are reported to the personnel. In 2015 we had two deviations of category 3: On June 28 the bentonite dosing station pumped one ton of undiluted material into the sewage of the mill. About 3.000 m³ of waste water had to be separated in Infracerv's puffer basins. On July 29 RVE reported a contamination of the rain water sewage with fibre material. The rain water barrier was put into function. A blockage of the sewage tube from the drum resulted in waste water penetrating the rain water sewage through a leak. The blocked tube was cleaned and repaired and a similar sewage location was secured. Both cases didn't have any effects on environment.

The waste fraction "White Pulp" makes up for about 10% of the sludge produced by the mill. Until the mid of 2015 the white pulp was incinerated for power generation together with the rest of the sludge. For a trial the material was separated in a container and delivered to a board producer in the region. In the board mill white pulp can replace recovered paper as a raw material and be processed to e.g. board as an intermediate layer in pallet shipping. After successful trials the invest for a conveyor for the material was approved. The new plant shall be taken into use in the first quarter of 2016.

As in the past there were no inquiries or complaints from the neighborhood.



Armin Schmidt

Armin Schmidt, General Manager

Guido H. Clemens

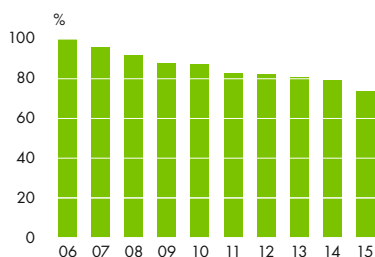
Guido H. Clemens, Manager Technology & Environment

Air

Fossil CO₂ emissions are reported by our energy supplier RWE/Kraftwerk Goldenberg.

UPM Hürth can only indirectly influence these emissions by increasing the energy efficiency of its production facilities. These targets are followed up consistently, the most important tools being optimization of heat recovery and the paper machine's operation mode.

SPEC. ENERGY CONSUMPTION PER TONNE OF PAPER PRODUCED



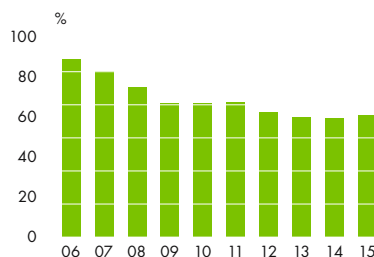
Water

The water for the production process comes from a deep well and is recirculated to reduce consumption. The well water has a low temperature and is first used for cooling, and then for the production process.

Here it runs several cycles of usage in the different water cycles of paper machine and de-inking plant. After pre-treatment in the mill it is directed to the water treatment plant in the adjacent chemical industrial park.

The consistent usage of the water from the PM cycle in the DIP cycles and for dilution of additives has led to a continuous reduction of the fresh water need for the paper production over the years.

SPEC. WASTE WATER CONSUMPTION PER TONNE OF PAPER PRODUCED

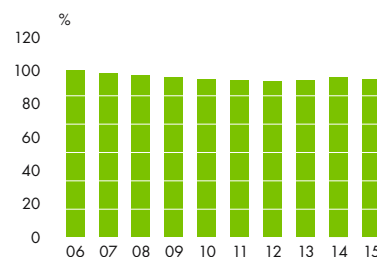


Waste

UPM Hürth uses 100% recovered paper as raw material. So most of the waste generated in the process consists of fibres too short for recycling, together with printing ink and mineral residues (sludge). The next important waste type is all the material the recovered paper contains when collected, as plastic foil, staples, inlays and CDs (rejects). These two kinds of waste make almost 99% of the waste generated. Due to a change in RCP composition in comparison to 2012 the waste amount per tonne of paper produced increased slightly.

Since the end of 2012 we have started to recycle sludge not only for heat exploitation in power plants but to give it to a specialized facility that combines thermal

SPEC. RECOVERED PAPER CONSUMPTION PER TONNE OF PAPER PRODUCED



and material recycling producing a substitute for Portland cement. Further possibilities for application of this product are in testing.

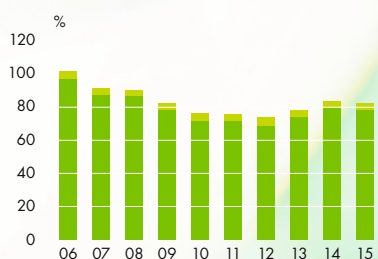
10% of the sludge fraction is recycled materially as a porosity additive in brick manufacturing: During stoving of bricks the fibre fraction is burned and leaves small holes in the brick which makes a better isolation of the walls built from it. The ashes remain as high quality filler.

As a result of the White Pulp project this sludge fraction is recycled as a raw material for board production.

All in all our waste recovery rate is nearly 100%. No waste is brought to a landfill.

Hazardous waste is handled by a licensed contractor for disposal and is disposed off according to governmental regulations.

TOTAL AMOUNT OF WASTE PER TONNE OF PAPER PRODUCED, DIVIDED INTO SLUDGE AND REJECTS



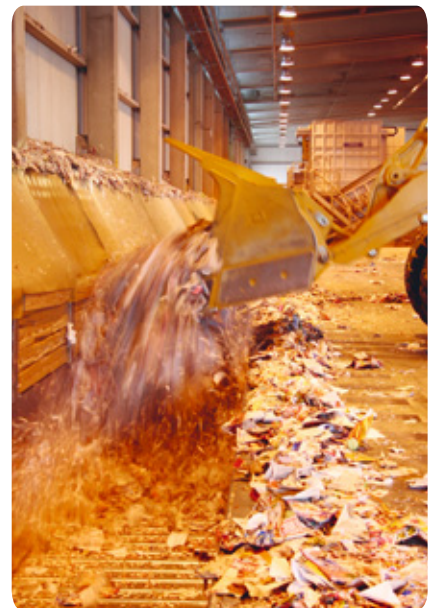
■ Rejects
■ De-inking sludge



Environmental parameters 2015

The figures related to production as well as raw material and energy consumption are published as aggregated figures on group level in the UPM Corporate Environmental Statement.

Production capacity	Paper	Up to 330,000 t
Raw materials and additives	Recovered paper Additives	See UPM Corporate Environmental Statement for more information
Energy	Fossil fuels Purchased power	See UPM Corporate Environmental Statement for more information
Emissions to air*	Carbon dioxide, CO ₂ (fossil) Nitrogen oxide, NO _x Sulphur dioxide, SO ₂ Particulate Carbon monoxide, CO	497,748 t 307.35 t 167.93 t 8.8 t 25,44 t
Water intake	Process water	2,157,679 m ³
Discharges to water	Effluent volume COD Phosphorus AOX	1,755,082 m ³ 1,879 t 1.145 t 0.38 t
Waste**	Total volume (without hazardous waste) of which: – de-inking sludge – screening rejects – others Recovery rate Hazardous Waste	91,444 t 85,797 t 5,136 t 511 t 100% 31 t
Size of mill area		12.75 ha



* preliminary values

** including moisture

COD: chemical oxygen demand

AOX: adsorbable organic halogen compounds

Performance against targets in 2015

TARGETS	TARGET ACHIEVED?
Power consumption ≤ 0.83 MWh/to	no
Steam consumption ≤ 0.94 MWh/to	yes
Yield: RCP loss $\leq 16,65\%$	yes
Clean Run Cat. $\geq 3 = 0$	no
Implement responsible persons for environmental issues on department level	yes

Current targets 2016

TARGETS AND MEASURES	DEADLINE	DEPARTMENT
Power consumption ≤ 0.826 MWh/to	2016-12-31	Manager Energy
Steam consumption ≤ 0.781 MWh/to	2016-12-31	Manager Energy
No wrong entries to waste containers	2016-12-31	Manager Technology & Environment
Clean Run Cat. $\geq 3 = 0$	2016-12-31	Manager Technology & Environment



Environmental verifier's declaration on verification and validation activities

Environmental verifier, Astrid Günther (DE-V-0357), acting for TÜV NORD CERT Umweltgutachter GmbH, licensed for the scope NACE Code 17.12 (papermaking), declares to have verified whether the site UPM Hürth/Rhein Papier GmbH, Bertramsjagdweg 12, 50354 Hürth, Germany, as indicated in the Environmental Statement 2015 of the mentioned site (registration no FI-000058), meets all requirements of Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community Eco-Management and Audit Scheme (EMAS).

By signing this declaration, I declare that:

- the verification and validation has been carried out in full compliance with the requirements of Regulation (EC) No 1221/2009,
- the outcome of the verification and validation confirms that there is no evidence of non-compliance with applicable legal requirements relating to the environment,
- the data and information of the Environmental Statement 2015 of UPM Hürth/Rhein Papier GmbH reflect a reliable, credible and

correct image of all the activities of UPM Hürth/Rhein Papier GmbH, within the scope mentioned in the Environmental Statement 2015.

This document is not equivalent to EMAS registration. EMAS registration can only be granted by a Competent Body under Regulation (EC) No 1221/2009. This document shall not be used as a stand-alone piece of public communication.

Essen, April 7, 2016

Astrid Günther
Environmental verifier
DE-V-0357
TÜV NORD CERT Umweltgutachter GmbH

MORE WITH BIOFORE

UPM leads the integration of bio and forest industries into a sustainable future. Biofore stands for innovation, responsibility and efficiency.
www.upm.com



www.upm.com

UPM Hürth

Rhein Papier GmbH
Bertramsjagdweg 12
50354 Hürth
Germany
Tel: +49 (0)2233 2006100
Fax: +49 (0)2233 2007960

For further information, please contact:

Armin Schmidt
General Manager
armin.schmidt@upm.com

Guido H. Clemens
Manager Technology & Environment
guido.clemens@upm.com